

SEQ. ALIGNMENT  
DATA: please Scan & mail.

181 MLTLFAERGDPDRGKSLDALLMRAERPGSPWSPGPGRGPGHVECSAIALTRIG 240  
241 TGLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGNLV 300  
241 TGLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGNLV 300  
301 SOLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADATDVIA 360  
301 SOLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADATDVIA 360  
361 RVROQLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 412  
361 RVROQLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 412

RESULT 2  
US-10-934-893-3251  
; Sequence 3251, Application US/10934893  
; Publication No. US20070042383A1  
; GENERAL INFORMATION:  
; APPLICANT: Kapur, Vivek, Bannantine, John P., Li, Ling-Ling, Zhang, Qing, and  
; APPLICANT: Amosin, Alonkorn  
; TITLE OF INVENTION: Mycobacterial Diagnostics  
; FILE REFERENCE: 09531/112002  
; CURRENT FILING DATE: 2004-09-03  
; PRIOR APPLICATION NUMBER: PCT/IB2003/006509  
; PRIOR FILING DATE: 2003-03-06  
; PRIOR APPLICATION NUMBER: 10/137,113  
; PRIOR FILING DATE: 2002-04-30  
; PRIOR APPLICATION NUMBER: 60/362,396  
; PRIOR FILING DATE: 2002-03-06  
; NUMBER OF SEQ ID NOS: 5809  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 3251  
; LENGTH: 415  
; TYPE: PRT  
; ORGANISM: Mycobacterium paratuberculosis  
US-10-934-893-3251

Query Match 82.4%; Score 1808.5; DB 5; Length 415;  
Best Local Similarity 79.6%; Pred. No. 8.5e-164;  
Matches 331; Conservative 38; Mismatches 42; Indels 5; Gaps 2;  
QY 1 MQSWSPAIPVVPGRGPALRFLDSADQVRPVT---PGPTATMYVCGITPYDATHLGH 56  
1 MRWSSPQVLPGRGPALRFLDSADQVRPVT---PGPTATMYVCGITPYDATHLGH 60  
57 ATYTLFVRLWLDAGHTVQVQNVTDVDDPLFERAERDGDIDWRTLGDRGTQLPREDMA 116  
61 ATYLAFLDIYRQWLDLGHVHYQNVTDVDDPLFERAERDGDIDWRTLGDRGTQLPREDMA 120  
117 ALRVLPDHYVAATAIAEVVEMVEKILASGAAYIVDAEYDPDVFADATQFGYESGY 176  
121 ALRILAPRDYVGAATAIAEVVEMVEKILASGAAYIVDGEFPDIYRADATLQFGYESGY 179  
177 DEDTMLTLFAERGDPDRPGKSDOLDALLMRAERPGSPWSPGPGRGPGHVECSAIAL 236  
180 DRETMRLFAERGDPDRPGKSDOLDALLMRAERPGSPWSPGPGRGPGHVECSAIAL 239  
237 TRIGTGLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGN 296  
240 SRIGSLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGN 299  
297 LVLSQLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADAT 356  
300 LVLSQLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADAT 359  
357 DVITARVQYLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 412  
360 DVITARVQYLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 415

RESULT 3  
US-10-511-244-4  
; Sequence 4, Application US/10511244  
; Publication No. US20060183116A1  
; GENERAL INFORMATION:  
; APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA  
; APPLICANT: THE UNIVERSITY OF BRITISH COLUMBIA  
; APPLICANT: SAREEN, Dipti  
; APPLICANT: NEWTON, Gerald L.  
; APPLICANT: FAHEY, Robert C.  
; APPLICANT: BUCHMEIER, Nancy  
; APPLICANT: STEFFEK, Micah  
; APPLICANT: AV-GAY, Yossef  
; APPLICANT: RAWAT, Mamta  
; APPLICANT: KOLEDIN, Teresa  
; TITLE OF INVENTION: METHODS OF USE OF THE ENZYMES OF MYCOTHIOL SYNTHESIS  
; FILE REFERENCE: UCSDI420-1  
; CURRENT FILING DATE: 2004-10-13  
; PRIOR APPLICATION NUMBER: PCT/US 03/11539  
; PRIOR FILING DATE: 2003-04-15  
; PRIOR APPLICATION NUMBER: US 60/373,890  
; PRIOR FILING DATE: 2002-04-19  
; PRIOR APPLICATION NUMBER: US 60/373,079  
; PRIOR FILING DATE: 2002-04-15  
; NUMBER OF SEQ ID NOS: 49  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 4  
; LENGTH: 414  
; TYPE: PRT  
; ORGANISM: Mycobacterium tuberculosis  
US-10-511-244-4

Query Match 82.2%; Score 1803; DB 5; Length 414;  
Best Local Similarity 79.0%; Pred. No. 2.8e-163;  
Matches 327; Conservative 37; Mismatches 48; Indels 2; Gaps 1;  
QY 1 MQSWSPAIPVVPGRGPALRFLDSADQVRPVT---PGPTATMYVCGITPYDATHLGH 60  
1 MQSWCEPVPVLPGRGPALRFLDSADQVRPVT---PGPTATMYVCGITPYDATHLGH 60  
61 TFDLVHRLWLDAGHTVQVQNVTDVDDPLFERAERDGDIDWRTLGDRGTQLPREDMA 120  
61 TFDLVHRLWLDAGHTVQVQNVTDVDDPLFERAERDGDIDWRTLGDRGTQLPREDMA 120  
121 LPPDHYVAATAIAEVVEMVEKILASGAAYIVDAEYDPDVFADATQFGYESGY 178  
121 LPPDHYVAATAIAEVVEMVEKILASGAAYIVDAEYDPDVFADATQFGYESGY 180  
179 DTMRLFAERGDPDRPGKSDOLDALLMRAERPGSPWSPGPGRGPGHVECSAIALTR 238  
181 DTMRLFAERGDPDRPGKSDOLDALLMRAERPGSPWSPGPGRGPGHVECSAIALTR 240  
239 ICTGLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGN 298  
241 IGSLGLDIQGGSDLIIPPHHYSAAHESVTGERFARHYVHTGMIGWDHMKSKSRGN 300  
299 LVLSQLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADAT 358  
301 LVLSQLRAQGVDPBSAIRLGLFSGHYREDRFSNEVLDEANARLARWSATAPADAT 360  
359 IARVQYLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 412  
361 VARVRYLADDDLTTPKALAALDGCWCTDALSYGCHDTPSLRVATVVDALLGVDL 414

RESULT 4  
US-11-041-504-288  
; Sequence 288, Application US/11041504  
; Publication No. US20070161091A1  
; GENERAL INFORMATION:  
; APPLICANT: Pompejus, Markus  
0040  
0132  
1013

APPLICANT: Kroger, Burkhard  
APPLICANT: Schroder, Hartwig  
APPLICANT: Zelder, Oekar  
APPLICANT: Haberhauser, Gregor  
TITLE OF INVENTION: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING PROTEINS  
TITLE OF INVENTION: INVOLVED IN GENETIC STABILITY, GENE EXPRESSION,  
TITLE OF INVENTION: AND PROTEIN SECRETION AND FOLDING  
FILE REFERENCE: BGI-127CP  
CURRENT APPLICATION NUMBER: US/11/041,504  
CURRENT FILING DATE: 2005-01-21  
PRIOR APPLICATION NUMBER: US/09/602,839  
PRIOR FILING DATE: 2000-06-23  
PRIOR APPLICATION NUMBER: 60/141031  
PRIOR FILING DATE: 1999-06-25  
PRIOR APPLICATION NUMBER: 60/143752  
PRIOR FILING DATE: 1999-07-14  
PRIOR APPLICATION NUMBER: 60/151671  
PRIOR FILING DATE: 1999-08-08  
PRIOR APPLICATION NUMBER: DE 19931412.8  
PRIOR FILING DATE: 1999-07-08  
PRIOR APPLICATION NUMBER: DE 19932928.1  
PRIOR FILING DATE: 1999-07-14  
NUMBER OF SEQ ID NOS: 618  
SEQ ID NO 288  
LENGTH: 420  
TYPE: PRT  
ORGANISM: Corynebacterium glutamicum  
US-11-041-504-288

Query Match 59.7%; Score 1309; DB 6; Length 420;  
Best Local Similarity 59.7%; Pred. No. 5.8e-116;  
Matches 253; Conservative 47; Mismatches 108; Indels 16; Gaps 4;  
Qy 1 MQSASPAIPVPPGKGPALRLFDSDADROVRVPTPGTAT-----MYVCGITPYDATHLGH 55  
Db 1 MQSPTPEVPALACTPVPLELFDADQEVRLVETPPAGSDTPVGMVCGITPYDSTHLGH 60  
Qy 56 AATYLTDLVHRLWLDAGHTVQVQNTVDVDDPLFERAERDGDWRTLGDRDTOLFRDM 115  
Db 61 AATYLAFLDIYRILLNDHDVHYVQNTITVDVDDPLFERAARDGVDRDLGTSQNLFRSDM 120  
Qy 116 AALRVLPDHYVAATDAIAEVEMVEKLLASGAAYIVEDAEYDPVFRADATAGFYESG 175  
Db 121 EALSIIIPKQYIGAESIDEIVEMVKTLLDEGAAYIVEDAEYDPVFRADATAGFYESN 180  
Qy 176 YDRDTMTLTPAERGGDPDRCKSQDLALLWRAERPGEPSPFGRGPGHVECSAIA 235  
Db 181 YDAATMAEFAERGGDPDRCKSQDLALLWRAERPGEPSPFGRGPGHVECSAIA 240  
Qy 236 LTRIGTGLDIQGGSDLIFFPHHEYSAAHAESVTGERFARHYVHTGMIGDGHKMSKRG 295  
Db 241 TNRIGHSFDIQGGSDLIFFPHHEYSAAHAESVTGERFARHYVHTGMIGDGHKMSKRG 300  
Qy 296 NLVLSQLRAQGVDPFSAIRLGLFSGHYREDRFWSNEVLDEANARLARWR-SATALPEAPD 354  
Db 301 NLEPVSLTAAGHEPGAILRGVFNHYGRNDRNAESLATAEORLATWREARAATNRD 360  
Qy 355 ATDVIAVRQVLAADLTPKALALDGC-----TDALSYGCHDTPSLVATTVDALL 408  
Db 361 AIAVVEQLRAHLSADLTPGALAAVDNWAAGIDTTTDSKEF-----TEVGNIVVAIDALL 416  
Qy 409 GVDL 412  
Db 417 GVQL 420

RESULT 5  
US-09-738-626-5170  
; Sequence 5170, Application US/09738626  
; Publication No. US20020197605A1  
; GENERAL INFORMATION:  
; APPLICANT: NAKAGAWA, SATOSHI  
; APPLICANT: MIKOGUCHI, HIROSHI

APPLICANT: ANDO, SEIKO  
APPLICANT: HAYASHI, MIKIRO  
APPLICANT: OCHIAI, KEIKO  
APPLICANT: YOKOI, HARUHIKO  
APPLICANT: TATEISHI, NAOKO  
APPLICANT: SENOH, AKIHIRO  
APPLICANT: IKEDA, MASATO  
APPLICANT: OZAKI, AKIO  
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES  
FILE REFERENCE: 249-125  
CURRENT APPLICATION NUMBER: US/09/738,626  
CURRENT FILING DATE: 2000-12-18  
PRIOR APPLICATION NUMBER: JP 99/377484  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: JP 00/159162  
PRIOR FILING DATE: 2000-04-07  
PRIOR APPLICATION NUMBER: JP 00/280988  
PRIOR FILING DATE: 2000-08-03  
NUMBER OF SEQ ID NOS: 7059  
SOFTWARE: PatentIn ver. 3.0  
SEQ ID NO 5170  
LENGTH: 404  
TYPE: PRT  
ORGANISM: Corynebacterium glutamicum  
US-09-738-626-5170

Query Match 57.8%; Score 1269; DB 3; Length 404;  
Best Local Similarity 60.6%; Pred. No. 3.7e-112;  
Matches 246; Conservative 45; Mismatches 99; Indels 16; Gaps 4;  
Qy 19 LRLPDSADROVRVPTPGTAT-----MYVCGITPYDATHLGHAAATVLTDLVHRLWLDAG 73  
Db 3 LELEFDADQEVRLVETPPAGSDTPVGMVCGITPYDSTHLGHAAATVLAFLIYRILLND 62  
Qy 74 HTVQVQNTVDVDDPLFERAERDGDWRTLGDRDTOLFRDMALRVLPDHYVAATDAI 133  
Db 63 HDVHYVQNTITVDVDDPLFERAARDGVDRDLGTSQNLFRSDMEALSIIIPKQYIGAESI 122  
Qy 134 AEVEMVEKLLASGAAYIVEDAEYDPVFRADATAGFYESGYDRDTMTLTPAERGGDP 193  
Db 123 DEIVEMVKTLLDEGAAYIVEDAEYDPVFRADATAGFYESGYDRDTMTLTPAERGGDP 182  
Qy 194 RPKGSDQLDALLWRAERPGEPSPFGRGPGHVECSAIAITRIGTGLDIQGGSDLI 253  
Db 183 RPKGNPMDALLWRAERPGEPSPFGRGPGHVECSAIAITRNLGHSFDIQGGSDLI 242  
Qy 254 PPHHEYSAAHAESVTGERFARHYVHTGMIGDGHKMSKRGNLVLSQLRAQGVDPFSAI 313  
Db 243 PPHHEYSAAHAESVTGERFARHYVHTGMIGDGHKMSKRGNLVLSQLRAQGVDPFSAI 302  
Qy 314 RLGLFSGHYREDRFWSNEVLDEANARLARWR-SATALPEAPDADTVIARVQYLAADLDT 372  
Db 303 RLGVFNHYGRNDRNAESLATAEORLATWREARAATNRDAIAVVEQLRAHLSADLDT 362  
Qy 373 PKALALDGC-----TDALSYGCHDTPSLVATTVDALLGVDL 412  
Db 363 PGALAAVDNWAAGIDTTTDSKEF-----TEVGNIVVAIDALLGVQL 404

RESULT 6  
US-10-805-394-5170  
; Sequence 5170, Application US/10805394  
; Publication No. US20060228712A1  
; GENERAL INFORMATION:  
; APPLICANT: NAKAGAWA, SATOSHI  
; APPLICANT: MIKOGUCHI, HIROSHI  
; APPLICANT: ANDO, SEIKO  
; APPLICANT: HAYASHI, MIKIRO  
; APPLICANT: OCHIAI, KEIKO  
; APPLICANT: YOKOI, HARUHIKO  
; APPLICANT: TATEISHI, NAOKO  
; APPLICANT: SENOH, AKIHIRO  
; APPLICANT: IKEDA, MASATO

; APPLICANT: OZAKI, AKIO  
 ; TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES  
 ; FILE REFERENCE: 249-125  
 ; CURRENT APPLICATION NUMBER: US/10/805,394  
 ; PRIOR FILING DATE: 2004-03-22  
 ; PRIOR APPLICATION NUMBER: JP 99/377484  
 ; PRIOR FILING DATE: 1999-12-16  
 ; PRIOR APPLICATION NUMBER: JP 00/159162  
 ; PRIOR FILING DATE: 2000-04-07  
 ; PRIOR APPLICATION NUMBER: JP 00/280988  
 ; PRIOR FILING DATE: 2000-08-03  
 ; NUMBER OF SEQ ID NOS: 7059  
 ; SOFTWARE: PatentIn ver. 3.0  
 ; SEQ ID NO 5170  
 ; LENGTH: 404  
 ; TYPE: PRT  
 ; ORGANISM: Corynebacterium glutamicum  
 US-10-805-394-5170

Query Match 57.8%; Score 1269; DB 5; Length 404;  
 Best Local Similarity 60.6%; Pred. No. 3.7e-112;  
 Matches 246; Conservative 45; Mismatches 99; Indels 16; Gaps 4;

Qy	19	LRLPDSADQVRPVTTPGPTAT-----MVCGITPYDATHLGHAAATYVTFDLVHRLWLDAG	73
Db	3	LELEDTAQEQVRLVETTPAGSDTPVGMVCGITPYDSTHLGHAAATYVTFDLVHRLWLDND	62
Qy	74	HTVQVQNVTVDDPLFERAERDGDIDWRTGLDRETQLFREDMAALRVLPVPHDYVAATDAI	133
Db	63	HDVHYVQNVITDVPDLFERAARDGVDWDLGTSQINLFRSDMEALSIIIPKDYIGAIESI	122
Qy	134	ABVEMVEKLASGAAYIVEDAEYDPVYFRADATAQFGYESYDRDWTMTLFAERGGDDP	193
Db	123	DEVIMWTKLLDEGAAYIVEDAEYDPVYASINATDKFGYESYDAATMAEFPAERGGDPE	182
Qy	194	RPKSDQDLALLWRAERGPSPFPGRGRCGMHVECSAIALTRIGTGLDIQGGSDLI	253
Db	183	RPKKNPMDALLWRAAREGEPSWESFPAGRGPGWHIECSAIALTRNLGHSFDIQGGSDLI	242
Qy	254	PPHYESAHAESVTGERFARHYHTGMIGWDGKMSKSRGNLVLVSOLRAQGVDPSPAI	313
Db	243	PPHYESAHAHAANGVERMAHYHAGMISQGVKMSKSLNLFSEVSLTAAGHEPGAI	302
Qy	314	RLGLFSGHYREDRFSNEVLDEANARLARWR-SATALPEAPDATDVIAVRVOYLADDLDT	372
Db	303	RLGVFANYRGNDNNAESLATAEQLATWREARAATNREDAIAVEQLRAHLSADLDT	362
Qy	373	PKAALALDGC-----TDALSYGGHDTSPRLVATTVALLGVDL	412
Db	363	PGALAAVDNNAAGIDTTTDSKEF---TEVGNIVVAAIDALLGVQL	404

RESULT 7  
 US-10-511-244-6  
 ; Sequence 6, Application US/10511244  
 ; Publication No. US20060183116A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA  
 ; APPLICANT: SAREEN, Dipti  
 ; APPLICANT: NEWTON, Gerald L.  
 ; APPLICANT: FAHEY, Robert C.  
 ; APPLICANT: BUCHMEIER, Nancy  
 ; APPLICANT: STEFFEK, Micah  
 ; APPLICANT: AV-GAY, Yossef  
 ; APPLICANT: RAWAT, Mamta  
 ; APPLICANT: KOLEDIN, Teresa  
 ; TITLE OF INVENTION: METHODS OF USE OF THE ENZYMES OF MYCOTHOLIOL SYNTHESIS  
 ; FILE REFERENCE: UCSD1420-1  
 ; CURRENT APPLICATION NUMBER: US/10/511,244  
 ; PRIOR FILING DATE: 2004-10-13  
 ; PRIOR APPLICATION NUMBER: PCT/US 03/11539  
 ; PRIOR FILING DATE: 2003-04-15

; PRIOR APPLICATION NUMBER: US 60/373,890  
 ; PRIOR FILING DATE: 2002-04-19  
 ; PRIOR APPLICATION NUMBER: US 60/373,079  
 ; PRIOR FILING DATE: 2002-04-15  
 ; NUMBER OF SEQ ID NOS: 49  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 6  
 ; LENGTH: 409  
 ; TYPE: PRT  
 ; ORGANISM: Streptomyces coelicolor  
 US-10-511-244-6

Query Match 56.2%; Score 1232.5; DB 5; Length 409;  
 Best Local Similarity 57.1%; Pred. No. 1.2e-108;  
 Matches 236; Conservative 54; Mismatches 118; Indels 5; Gaps 2;

Qy	1	MQSWSAPAIPIVVPGRGAPALRLFDSADQVRPVTTPGPTATMYCGITPYDATHLGHAAATYL	60
Db	1	MHAWPASEVPALPGQGRDLRIHDTATGGFVTLDPGFVARIYVCGITPYDATHMGHAATYN	60
Qy	61	TFDLVHRLWLDAGHTVQVQNVTVDDPLFERAERDGDIDWRTGLDRETQLFREDMAALRV	120
Db	61	AFDLYQVRVWLDTKRQVHYVQNVTVDDPLERARVDRDGVDTALAEQETALFREDMTALRM	120
Qy	121	LPPHDYVAATDAIAESVEMVEKLASGAAYIVEDAEYDPVYFRADATAQFGYESYDRDT	180
Db	121	LPPQHYIGAVEALPGIVLVERLDRDAGAAYELEG---DVYFSVEADPHFGGVSHLDAAT	176
Qy	181	MLTLFAERGGDDPRPGKSDQLDALLWRAERGPSPWP-SPPGGRGRCGMHVECSAIALTRI	239
Db	177	MELLSAERGGDDPRPGKKNPLDPLMWAAREGEPSWDGGLGRGRPGWHIECSAIALDHL	236
Qy	240	GTGLDIQGGSDLIIPHYESAHAESVTGERFARHYHTGMIGWDGKMSKSRGNLVL	299
Db	237	GMGFVQVQGGSDLAFFHEMGASHAQAALTGEFPMAKAYVHAGVMVLDGKMSKSGNLVF	296
Qy	300	VSOLRAQGVDPSPAIRLGLFSGHYREDRFSNEVLDEANARLARWR-SATALPEAPDATDVI	359
Db	297	VSQLRREGVDPSPAIRLTLAHLHYRSDWEWTDQVLQDALARLDRWRAVSRPDGPPAEALV	356
Qy	360	ARVROYLADDLTPKALALDGCWCTDALSYGGHDTSPRLVATTVALLGVDL	412
Db	357	EBIREALANDLSPALAAVDRWAALQOESGGTDDIGAPGVSVRAVDALLGVALL	409

RESULT 8  
 US-10-511-244-5  
 ; Sequence 5, Application US/10511244  
 ; Publication No. US20060183116A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA  
 ; APPLICANT: SAREEN, Dipti  
 ; APPLICANT: NEWTON, Gerald L.  
 ; APPLICANT: FAHEY, Robert C.  
 ; APPLICANT: BUCHMEIER, Nancy  
 ; APPLICANT: STEFFEK, Micah  
 ; APPLICANT: AV-GAY, Yossef  
 ; APPLICANT: RAWAT, Mamta  
 ; APPLICANT: KOLEDIN, Teresa  
 ; TITLE OF INVENTION: METHODS OF USE OF THE ENZYMES OF MYCOTHOLIOL SYNTHESIS  
 ; FILE REFERENCE: UCSD1420-1  
 ; CURRENT APPLICATION NUMBER: US/10/511,244  
 ; CURRENT FILING DATE: 2004-10-13  
 ; PRIOR APPLICATION NUMBER: PCT/US 03/11539  
 ; PRIOR FILING DATE: 2003-04-15  
 ; PRIOR APPLICATION NUMBER: US 60/373,890  
 ; PRIOR FILING DATE: 2002-04-19  
 ; PRIOR APPLICATION NUMBER: US 60/373,079  
 ; PRIOR FILING DATE: 2002-04-15  
 ; NUMBER OF SEQ ID NOS: 49  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 5

QY 299 LVSQRAQGVDPFAIRLGLFSGHYREDRFWSNEVLDEANARLARMSATAPADPDV 358  
DB 301 LVSALRAQGVDPFAIRLGLFSGHYREDRFWSNEVLDEANARLARMSATAPADPDV 360  
QY 359 IARVQYLADDDTPKALAAALGQWCTDALSYGGHDTESPLVATVTDALLGVDL 412  
DB 361 VARVRYLADDDTPKALAAALGQWCTDALSYGGHDTESPLVATVTDALLGVDL 414

## RESULT 3

AG91416  
ID AAG91416 standard; protein; 404 AA.  
AC  
AC AAG91416;  
DT 15-JUN-2007 (revised)  
DT 26-SEP-2001 (first entry)  
XX  
DE C glutamicum protein fragment SEQ ID NO: 5170.  
KW Corynebacterium; amino acid synthesis; vitamin; saccharide;  
KW organic acid synthesis; BOND\_PC; CysteinyI-tRNA synthetase;  
KW CysteinyI-tRNA synthetase [Corynebacterium glutamicum ATCC 13032]; GO166;  
KW GO4812; GO4817; GO5524; GO6412; GO6423; GO16874.  
XX  
OS Corynebacterium glutamicum.

EP1108790-A2.

20-JUN-2001.

18-DEC-2000; 2000EP-00127688.

16-DEC-1999; 95UP-00377484.

07-AUG-2000; 2000JP-00159162.

03-AUG-2000; 2000JP-00280988.

(KYOW ) KYOWA HAKKO KOGYO KK.

Nakagawa S, Mizoguchi H, Ando S, Hayashi M, Ochiai K, Yokoi H;

Tateishi N, Senoh A, Ikeda M, Ozaki A;

WPI; 2001-376931/40.

N-PSDB; AAH66635.

PC:NCBI; G161216674.

PC:SWISSPROT; Q8NQC4.

Novel polynucleotides derived from Corynebacterium bacteria, for identifying

mutation point of a gene, measuring expression of a gene, analyzing

expression profile or pattern of a gene and identifying homologous gene.

Claim 17; SEQ ID NO 5170; 246pp + Sequence Listing; English.

The present invention provides a number of nucleotide and protein

sequences from the Corynebacterium glutamicum. These

are useful for identifying the mutation point of a gene derived from a

mutant of corynebacterium, measuring expression amount and analysing

the expression profile or expression pattern of a gene derived from

Corynebacterium, and identifying a homologue of a gene derived from

Corynebacterium. Corynebacterium bacteria are useful for producing amino

acids, nucleic acids, vitamins, saccharides and organic acids,

particularly L-lysine. The present sequence is a protein described in the

exemplification of the invention. Note: The sequence data for this patent

did not form part of the printed specification, but was obtained in

electronic format directly from the European Patent Office

Revised record issued on 15-JUN-2007 : Enhanced with precomputed

information from BOND.

Sequence 404 AA;

Query Match

Best Local Similarity

57.8%; Score 1269; DB 4; Length 404;

60.6%; Pred. No. 9.6e-119;

Matches 246; Conservative 45; Mismatches 99; Indels 16; Gaps 4;  
QY 19 LRLFDSDADQVRVPTFCPTAT-----MYVCGIIPYDATHLGHAAATYLTEDLAVHRLWLDAG 73  
DB 3 LELFDADQVRVPTFCPTAT-----MYVCGIIPYDATHLGHAAATYLTEDLAVHRLWLDAG 62  
QY 74 HTVQYQNVTDVDDPLFERAERDIDWRTIGDRETDQAFQYSGYDRTDMLTLFAERGGPD 133  
DB 63 HDVHYQNVTDVDDPLFERAERDIDWRTIGDRETDQAFQYSGYDRTDMLTLFAERGGPD 122  
QY 134 AEVVEVVEKLLASGAAYIVEDAEYPDVYFRADTAQFQYSGYDRTDMLTLFAERGGPD 193  
DB 123 DEVIEMVTKLLDEGAAYIVEDAEYPDVYFRADTAQFQYSGYDRTDMLTLFAERGGPD 182  
QY 194 RPKSDQLDALLWRAERPGEPSPGRCRPGHVECSAIALTRIGTGLDIQGGSDLI 253  
DB 183 RPKGNPMDALLWRAERPGEPSPGRCRPGHVECSAIALTRIGTGLDIQGGSDLI 242  
QY 254 FPHHEYSAAHAESVTGERPFAHYVHTGMIGWGHKMSKRGNLVLSQRAQGVDPFAI 313  
DB 243 FPHHEYSAAHAESVTGERPFAHYVHTGMIGWGHKMSKRGNLVLSQRAQGVDPFAI 302  
QY 314 RLGLFSGHYREDRFWSNEVLDEANARLARMSATAPADPDVATVTDALLGVDL 372  
DB 303 RLGVFANHYGRNDRWNAESLATAEQRLATWREAAATNREDAIAVVEQLRAHLSADLDT 362  
QY 373 PKALAAALDQWC-----TDALSYGGHDTESPLVATVTDALLGVDL 412  
DB 363 PGALAAAVDNWAAGIDTTTDSKEP-----TEVGNIVVAAIDALLGVQL 404

## RESULT 4

ABM79603

ID ABM79603 standard; protein; 409 AA.

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AC ABM79603;

DT 15-JUN-2007 (revised)

DT 22-APR-2004 (first entry)

XX

DE S coelicolor MshC protein.

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KW Enzyme; mycothiol synthesis; MshC; MshD; MshA; infection;

KW Cysteine:glucosaminyl inositol ligase; antibacterial;

KW acetyl-CoA:Cys-GlcN-Ins acetyltransferase; BOND\_PC;

KW putative cysteinyI-tRNA synthetase;

KW putative cysteinyI-tRNA synthetase [Streptomyces coelicolor A3(2)];

KW SC152\_05c; cysteinyI-tRNA synthetase;

KW cysteinyI-tRNA synthetase [Streptomyces coelicolor A3(2)]; cyss; GO166;

KW GO4812; GO4817; GO5524; GO6412; GO6423; GO16874.

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OS Streptomyces coelicolor.

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PN WO2003089585-A2.

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PD 30-OCT-2003.

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PP 15-APR-2003; 2003WO-US011539.

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PR 15-APR-2002; 2002US-0373079P.

PR 19-APR-2002; 2002US-0373890P.

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XX

PI Sareen D, Newton GL, Fahey RC, Buchmeier N, Steffek M, Av-Gay Y;

PI Rawat M, Khaledin T;

XX

DR WPI; 2004-042359/04.

DR PC:NCBI; G161216726.

DR PC:SWISSPROT; Q9ADA4.

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PT Identifying inhibitors of mycothiol biosynthesis, useful as antibacterial